

CogniTech Corporation

Introduction to POLARIS Web Services

Jerome Soller, Ph.D., President

Robert Gray, Product Line Manager



Summary

- Need for Web Services
- Introduction to Web Services
- Relevant Standards
- Tutorial
- How it all fits together
- Performance

Need for Web Services

- Agencies using other commercial systems need to upload demographics and PCR data
 - State exports to federal systems
 - Analysis of statewide using analytical tools
- Exports to external systems that support web services
 - Federal agencies (future)
 - Researchers

Introduction to Web Services

- A **Web service** is "a software system designed to support interoperable machine-to-machine interaction over a network."
- Examples of interaction
 - importing data
 - exporting data
 - performing a remote statistical calculation after requesting data from a different system

Web Services terminology

- Each web service has "operations" (functions) that "do something"
- POLARIS web service operations
 - exportPCR
 - importPCR
 - updatePCR
 - updateDEMO
 - exportDEMO
 - searchPCRs

Web Services Terminology - pg 2

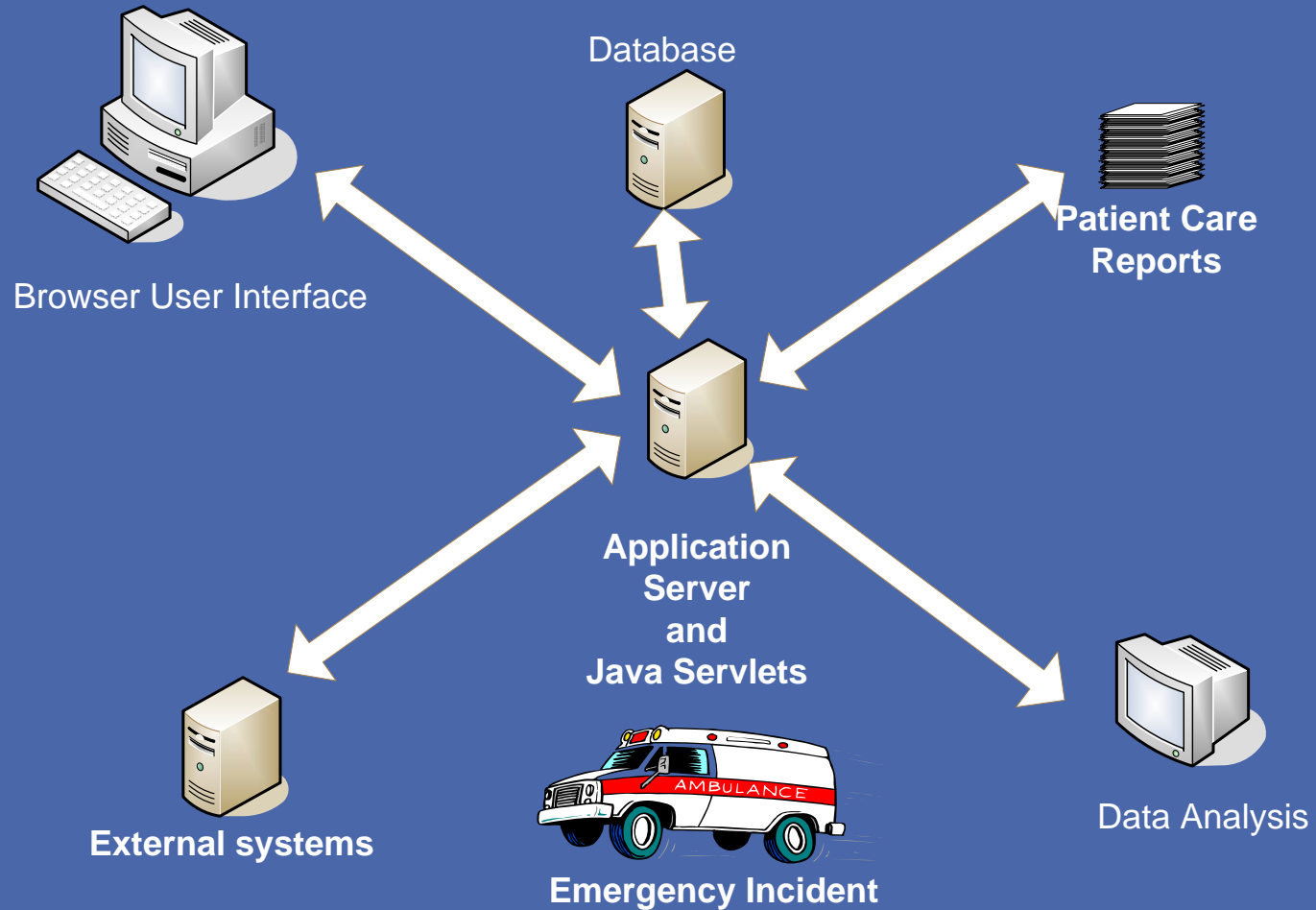
- Client - System making the request for a web service operation on a different system
- Server - System managing the web service operations that clients call
- A single computer can be both a client and a server

General Web Services Standards

● Relevant standards bodies

- W3C, WS-I, OASIS
- eXtensible Markup Language (XML) for data content
- Typically Simple Object Access Protocol (SOAP) for communication standard
- Web Services Definition Language (WSDL) to define the operations and the selected communication standard

System View



POLARIS Data Exchange Page

Import/Export PCRs - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://hldb03spr.its.utah.gov/ems/ImportExport.do

POLARIS Help: Find

Utah's Pre-Hospital Online Active Reporting Information System

User: jerome sollar Agency: Brigham Young University EMS

Incomplete PCRs Search PCRs Analysis Demographics **Data Exchange** Configure Data Elements Help Log Off

Import Patient Care Reports

Select the file to import from, the file must be a valid NEMSIS XML file.

File: Browse...

☒ This data is to be inserted as New PCRs

☐ This data is to update existing PCRs

☐ Mark these PCRs as complete

Import

Import/Update Agency Demographic Data

Select the file to import from, the file must be a valid NEMSIS Demographic XML file.

File: Browse...

Import

Export Patient Care Reports

Incident	Patient
Incident #: <input type="text"/>	First Name: <input type="text"/>
Unit Call Sign: <input type="text"/>	Last Name: <input type="text"/>
Date: <input type="text"/> / <input type="text"/> / <input type="text"/> to <input type="text"/> / <input type="text"/> / <input type="text"/>	Birthdate: <input type="text"/> / <input type="text"/> / <input type="text"/> to <input type="text"/> / <input type="text"/> / <input type="text"/>
Street Address: <input type="text"/>	Age: <input type="text"/> to <input type="text"/> Years
City: <input type="text"/>	PCR Entry
County: <input type="text"/>	PCR #: <input type="text"/>
	PCR Created By: <input type="text"/>
	PCR Created: <input type="text"/> / <input type="text"/> / <input type="text"/> to <input type="text"/> / <input type="text"/> / <input type="text"/>
	PCR Last Updated: <input type="text"/> / <input type="text"/> / <input type="text"/> to <input type="text"/> / <input type="text"/> / <input type="text"/>

Web Service Operation Response Time

- UpdateDEMO

- 1.567 s per update of full agency record

- ExportDEMO

- 0.129 s for an export of full agency record

- importPCR

- 93.804 s for 500 imports of PCRs

- updatePCR

- 13.651 s for 100 updates of PCRs

- exportPCR

- 27.070 s for 1000 PCR exports

Contact information

Jerome Soller, Ph.D. and Robert Gray
CogniTech Corporation
1060 East 100 South
Suite 306
Salt Lake City, Utah 84102
Phone: (801) 322-0101
Fax: (801) 322-0975
E-mail: soller@cognitech-ut.com and
rgray@cognitech-ut.com
Outdated CogniTech Web site:
<http://www.cognitech-ut.com>
State of Utah POLARIS Web Site:
<http://health.utah.gov/ems/data/polaris/>



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